

Our locations

- Locations

▲ Servicepoints

● Dealer

● Dealer DE
- 1 FHL-Werkzeugmaschinenvertrieb Apolda

2 M.Peters Werkzeugmaschinen Waldshut-Tiengen

3 J+K Jugard + Künstler München

4 Prematech e.K. Obermichelbach

5 Bernd Goll Industrievertretungen Knittlingen

6 PeHa Werkzeugmaschinen Weissenhorn

7 Ralf Brune Maschinenhandel Kierspe

8 Sudler Werkzeugmaschinen Langgöns

9 WS Werkzeugmaschinen Industrievertretung GmbH Wedemark



Okamoto
GRIND - X



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All data contained herein is based on the technical status of the machines at the time of printing. We reserve the right to change any detail via further development. As a result, dimensions, weights, colours, etc. of the delivered machines may vary.
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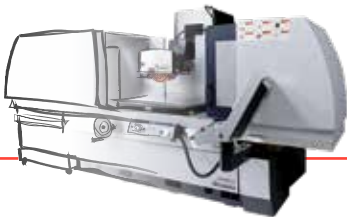
Surface & Profile Grinding Machine

ACC CA-iQ



GRIND - X
OKAMOTO PRECISION SYSTEMS
Okamoto

GRINDING SOLUTIONS



NEW MODEL SERIES
OF MEDIUM SIZE SURFACE
GRINDING MACHINES

ACC 84 CA-iQ

Number of
controlled axes

2 controlled NC axis

- Better operability and repeatable accuracy are considered as the most important factor.
- The 400 mm wide models are redesigned to column moving system.
- The 600 mm wide range are developed to meet the market requirements for larger work piece sizes.



INCREASED FUNCTIONS

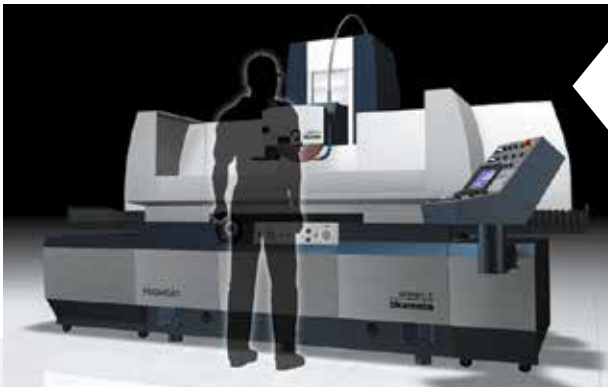
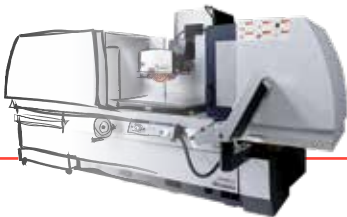
- Electro permanent magnet 600 x 300 mm
- Paper belt filter with coolant device
- ISO software, profile creation software
- Okamoto-I-CAM, CAD/CAM software

	Description		Unit	CA-iQ-series				
				64CA-iQ	84CA-iQ	104CA-iQ	66CA-iQ	106CA-iQ
Capacity	Table working cap. (length x width)		mm	605 x 400	805 x 400	1016 x 400	605 x 600	1016 x 600
	Maximum travel (manual : longitudinal x cross)		mm	800 x 440	1000 x 440	1200 x 440	800 x 652	1200 x 652
	Distance new wheel – table		mm	22,5 - 522,5			-2,5 - 497,5	-2,5 - 497,5
	Standard magnetic chuck size		mm	600 x 400 x 85	800 x 400 x 85	1000 x 400 x 85	600 x 600 x 85	1000 x 600 x 85
	Table load capacity (incl. chuck weight)			1000			1500	1500
	Height on table (from floor)		mm	915				
Table	T-slots (width x No)		mm	-				
	Hydraulic feed rate (Li : linear motor)		m / min	3 - 25				
Crossfeed	Manual cross feed	Hand feed per revolution	mm	0,01 / 0,1 / 1,0 / 5,0				
		Graduation of handwheel		0,0001/0,001/0,01 / 0,05				
	Automatic cross feed	Intermittent feed	mm	0,5 - 20				
		Continuous feed	mm/min	0 - 1000				
Wheel head	Manual pulse feed	Hand feed per revolution	mm	0,01 / 0,1 / 1,0				
		Graduation of handwheel	mm	0,0001 / 0,001 / 0,01				
	Automatic downfeed (traverse & plunge)	Rough grinding	mm	0,001 - 0,03 (15 steps)				
		Fine grinding	mm	0,0001 - 0,01 (11 steps)				
	Feedrate (F-Command)		mm	1000				
	No. of sparkout			0 - 99				
	Rapid feed rate			0 - 1000				
Grinding wheel	Size OD x W x ID		mm	Ø 355 x 38 x Ø 127			Ø 405 x 50 x Ø 127	
	Speed (Invertor)		min ⁻¹	500 - 2500				
Motors	Grinding wheel spindle (reverse-ventilation)		kW	7,5				
	Hydraulic pump		kW	2,2 / 4				
	Vertical feed (AC servo)		kW	1,5				
	Cross feed (AC servo)		kW	0,75				
	Destred power supply (including electro mag & coolant system)			24				
Floor space	Length		mm	3710	4000	4500	4000	4500
	Width		mm	3439	3500	3500	3700	3610
	Height		mm	2203	2203	2203	2275	2275
	Net weight		kg	4950	5500	7000	6300	7500

Column moving series suitable for larger work pieces

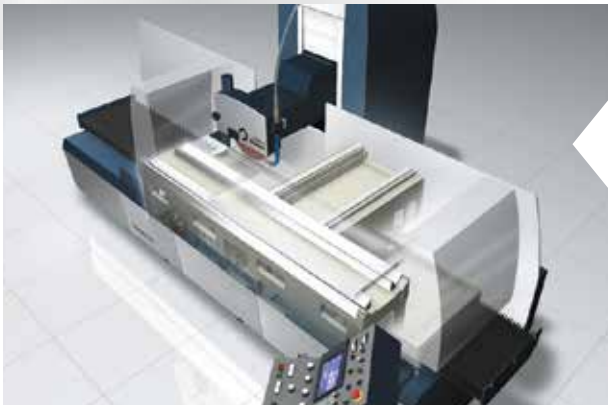
ACC CA-iQ

LCD touch screen display Simplified and efficient control



Improved Covering

- Standard cover designed for the use of high pressure coolant systems.
- Draining system to meet the increased amount of coolant.
- High quality sheet metal cover (powder coated) with new design.
- Two tone colour painting and ergonomic design.



High rigid structure

- The cross feed movement is supported on very rigid guide ways.
- This design of the column has been developed to guarantee very accurate cross movement.



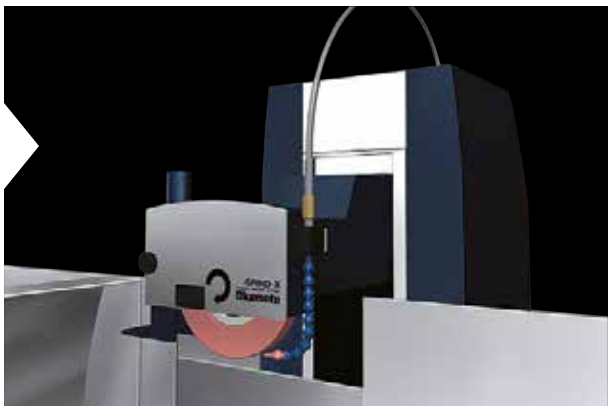
Easy access to working area

- Column type design gives easier access for loading and unloading the work pieces.
- For the same reason the distance between floor and work table has been reduced.
- For the same reason the distance between floor and work table has been reduced. This is 87 mm lower than existing machines of the same size.



T shaped main casting

- Extremely rigid single piece T shaped main casting.
- Machine table supported on both sides at all times. Additional table mounted devices, and fixtures are supported across the full table length.



V-V slide way

- The double V (V-V) longitudinal slideway ensures accurate straightness.
- Controls the amount of the lubricating oil layer.

Control to simplify the operation

The development of the new Okamoto iQ touch screen control and its easy to use software, coupled with an inherent mechanical accuracy, allows everyone to achieve impressive results. Setting of the machine is divided into 2 parts, wheel dressing and grinding. A logical

graphical representation of each of these operations serves to guide the operator through the setting process. This setting process is made even easier by the use of easy to understand icons displayed on a generously sized colour screen.

Control Panel

- The position of the panel gives easy access to the controls, with the switches ergonomic positioned.

Mode selector switch

- Automatic cycle position setting, rapid and manual feed rate to be set.
- All function are interlocked.

Handwheel

- Both axes can be moved with electronic handwheels, whereby the pitch can be varied

Stock removal set

- The remaining stock removal is displayed (0,1).
- Rough and fine infeed amount are set by selector switches (0.5, 1, 2, 5, 10, 20, 30 µm).



Manual handwheel

Grinding Data (Surface)

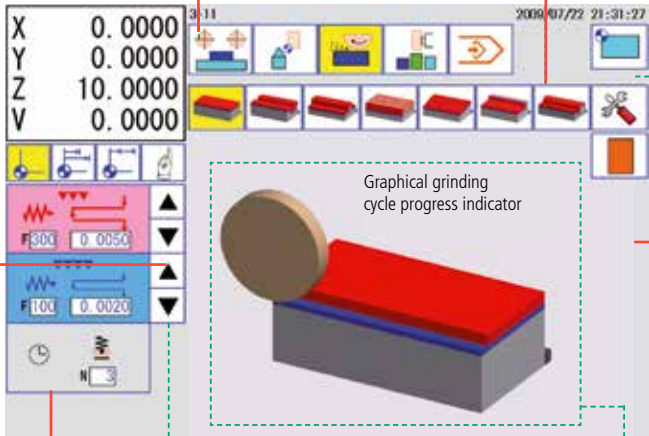
The grinding method and all other parameters including wheel shape are set-up using the touch screen panel.

Mode Select

- Table setting
- Dress data
- Grind data
- Combined grinding
- File operation

Feed Rates

- Can be changed in-cycle



Grinding Feed Rates

- **iQ Function**
By entering the wheel mesh size, optimal grinding condition automatically set.
- Cross feed
- 1 Speed (F)
- 2 Infeed amount
- Spark out passes / times
- Estimated remaining time to cycle finish

Dynamic Menu

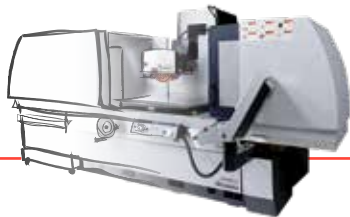
- Surface shape
- U-shape
- T-shape
- Pitch
- Step
- Side face
- Conturing

Dynamic Menu

- (Grind parameters)
- Datum method selected (picture show work datum)
- Setting parameters
 - 1 Select step or continuous feed
 - 2 Chuck/Word datum select
 - 3 Set up air-cut amount
- Selected wheel shape for current grind cycle (Press this icon to alter dress conditions)


Setup-Screen for
various grinding conditions

ACC CA-iQ

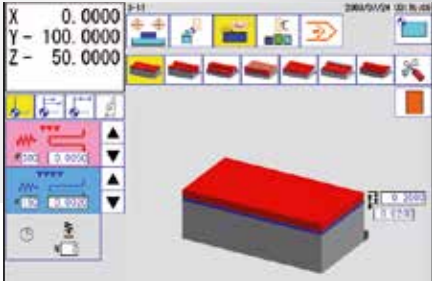


Software

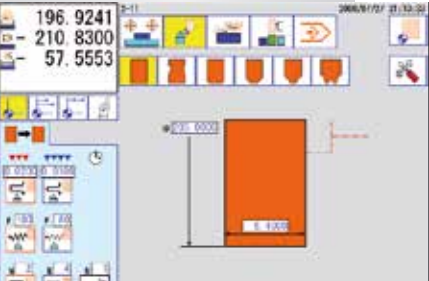
Surface




Grinding data (Surface)



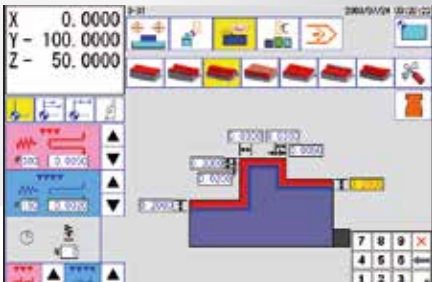
Dress data (Straight)



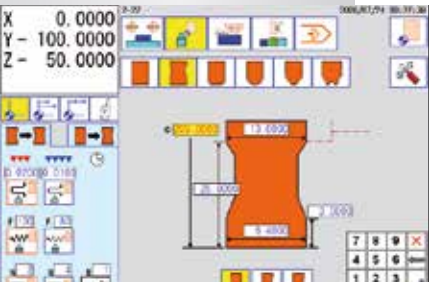
t shape



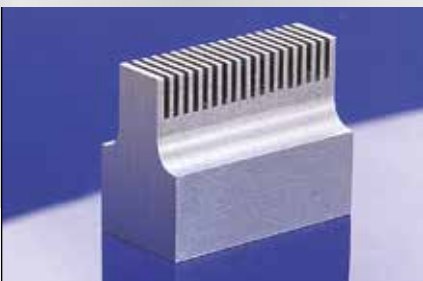
Grinding data (T shape)



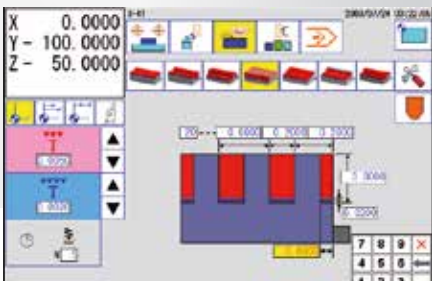
Dress data (Side)



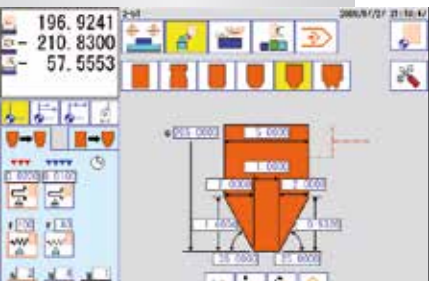
Pitch Shape




Grinding data (Pitch shape)



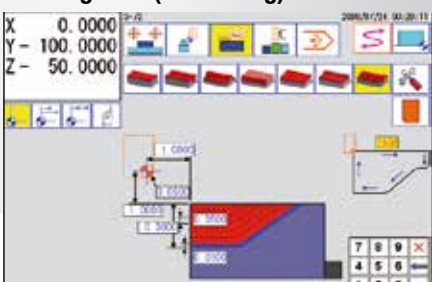
Dress data (V shape)



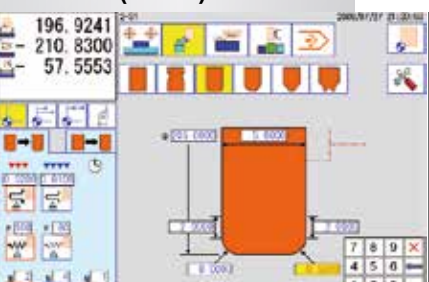
Conturing




Grinding data (Contouring)



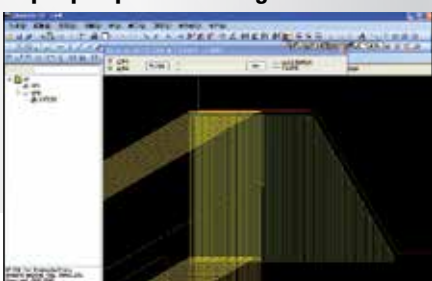
Dress data (Radius)



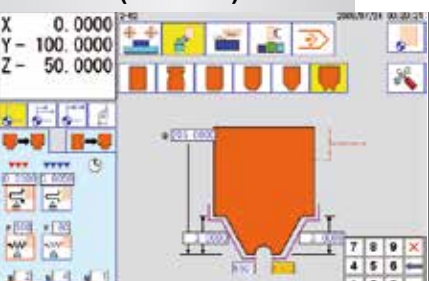
UPCAM



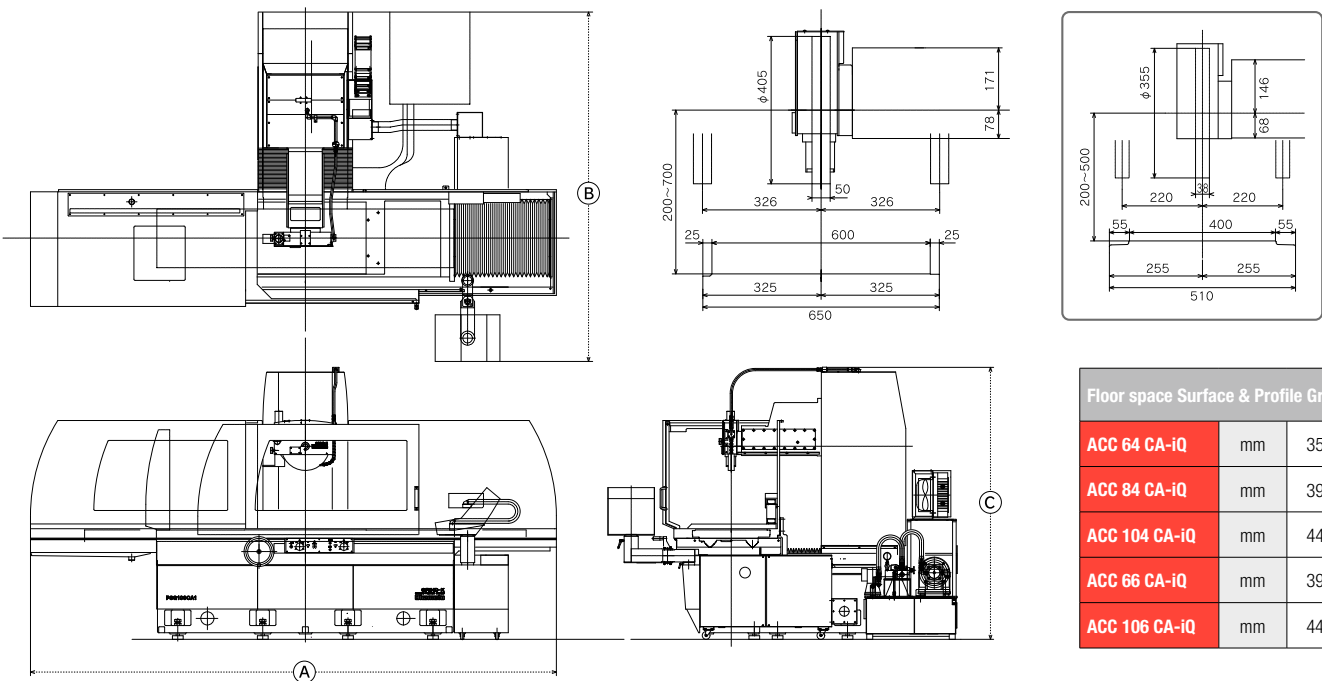
Rapid pre-profil dressing



Dress data (Free Form)



Outline Drawing



Floor space Surface & Profile Grinding Machines		
ACC 64 CA-iQ	mm	3595 x 2900 x 2203
ACC 84 CA-iQ	mm	3980 x 2900 x 2203
ACC 104 CA-iQ	mm	4479 x 2900 x 2203
ACC 66 CA-iQ	mm	3990 x 3350 x 2275
ACC 106 CA-iQ	mm	4479 x 3350 x 2275

Accessories

Standard		Optional
Grind X grinding wheel	Coolant system	Coolant tank with paper
Wheel balancing arbor		Coolant tank with ECO filter, magnetic dust Separator and temperature controller
Spindle speed inverter	Chuck	Electro magnetic chuck
Whee flange		Electro permanent chuck and microcontroller
3 point dresser	Grinding whel adaptor	Spare grinding wheel adaptor
Flexible nozzle		Balancing apparatus with arbor
Standard tools	Balancing apparatus	Micro Balancer semi automatic
Leveling bolts and plates		Fully automatic wheel balancer
Splash cover	Work light	LED Working light
chuck controller MA5		
Earth leakage breaker	Special paint	Air exchange
Grinding time estimate function		Oil cooling system
Grinding cycle (Surface, U shape, T shape, step, pitch, side)	Oil cooling system	Temperature controlled grinding head
Dressing cycle (straight,side)		
Wheel guard 400 mm	Measuring instrument	Calender time
	Safety related options	Postoperation power off
		Overhead wheel dresser with compensation
	Dressing options	Swing dresser
	Grinding cycles	Contouring cycle
		ISO code cycle
	Dressing cycle	Radius dress
		Full radius dress
		V form dress
		ISO code dress
	Programming software	UP CAM